In this article, authors Dr. Lawrence Epstein and Steven Mardon offer advice for dealing with sleepy teenagers. Read the article and answer the questions that follow.

## **Homeroom Zombies**

by Lawrence Epstein, M.D., and Steven Mardon

Teens need at least nine hours of sleep a night, though few get that much and early school start times don't help. Here's what parents can do.



**DOZING OFF:** Drowsy kids may have trouble staying awake in class

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s THE SCHOOL YEAR KICKS OFF, PARENTS are once again struggling to cajole<sup>1</sup> and, if need be, drag their exhausted teens out of bed. Later, teachers get a close-up view of sleep deprivation's effects, as bleary students zone out and even doze off in class. "I've learned never to dim the lights, even to show a video," says Lauren Boyle, a history teacher at Waltham High School in Massachusetts. "If I do, there are days when a third of the class falls asleep."

That image may make you laugh, but lack 2 of sleep is no joke. Adolescents who don't get enough rest have more learning, health, behavior and mood problems than students who get at least nine hours a night. In some cases, teens may be incorrectly diagnosed with ADHD<sup>2</sup> when sleep deprivation is actually the source of their symptoms. Perpetual lack of sleep is tied to diabetes, heart disease, obesity, depression and a shortened life span in adults, underscoring the importance of establishing good sleep habits early in life. Lack of sleep can be especially deadly for teens; car accidents are the leading cause of death among adolescents, and safety experts believe drowsy driving is a major factor.

Unfortunately, few adolescents get the sleep they need. In one recent study, researchers at Case Western Reserve University found

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<sup>&</sup>lt;sup>1</sup> cajole — persuade

<sup>&</sup>lt;sup>2</sup> ADHD — attention-deficit hyperactivity disorder, a condition characterized by inattentiveness

that more than half of students slept seven hours or less, and almost one in five got less than six hours. In a survey of middle- and high-school students, University of Colorado researchers found that 82 percent said they woke up tired and unrefreshed, and more than half had trouble concentrating during the day at least once a week.

<sup>4</sup> Blame multitasking for some of this. Many students are juggling after-school activities, homework and part-time jobs. Even when they manage to fulfill these obligations by a reasonable hour, television, the Internet, videogames, phone calls and text messages to friends often keep them awake deep into the night. (On average, 12th graders have four major electronic devices in their bedrooms.) Taking caffeinated soda and energy drinks late in the day and going to late-night parties on weekends add to sleep debt.

Biology also works against 5 adolescents' sleep. The body's internal clock, which controls when a person starts to feel tired, shifts after puberty, making it hard for most teens to fall asleep before 11 p.m. Class usually begins before 8:15 a.m., with many high schools starting as early as 7:15 a.m. To get to school on time, most teens have to get up by 6:30 a.m., guaranteeing they'll be sleep-deprived during the week. Teens often sleep much later on weekends to catch up, making it even harder to fall asleep on Sunday night and wake up Monday morning. Playing catch-up on weekends also doesn't help teens stay alert when they need it most: during the week at school.

<sup>6</sup> Since the 1990s, middle and high schools in more than two dozen states have experimented with later school start times. The results have been encouraging:

more sleep, increased attendance, better grades and fewer driving accidents. For example, ninth graders' daily attendance rose from 83 percent to 87 percent and overall grades went up slightly when Minneapolis high schools moved the start time from 7:15 to 8:40 a.m. And car crashes involving teen drivers fell 15 percent when high schools in Fayette County, Ky., switched the high-school start time from 7:30 to 8:30 a.m. But most schools still start early, meaning teens have their work cut out for them if they want to get enough sleep.

7 Despite all these obstacles, parents can play a huge role in helping adolescents get the right amount of sleep. Here are some tips:

- 8 Educate your kids about sleep. Teens need to understand that their bodies require at least nine hours of sleep a day in order for them to do their best in school and enjoy their social lives. Explain that even a brief spell of short sleep raises their chances of feeling irritable and anxious, and experiencing minor ills such as headaches and stomach problems.
- 9 Keep a regular sleep/wake schedule. This conditions the body to expect to go to bed and get up at the same time every day. Teens should have a regular bedtime on school nights and should avoid staying up more than an hour later on weekends.
- 10 **Develop a pre-sleep routine.** This sets the stage for sleep. Wind down with nonstrenuous activities such as reading, listening to relaxing music or taking a shower. Avoid bright light in the evening, which signals the brain to stay alert. That includes TVs and computer screens.
- 11 **Monitor late-night activities.** Keep TV and videogames in the family room, not the bedroom. Teens are less likely

## Haven't Slept a Wink

Teenagers tend to sleep later than preadolescents, and like adults, they don't get enough sleep on the weekdays. How sleep patterns change with age:

Age	Natural bedtime*	Hours or recommended	of sleep: actual†
0–1 yrs.	7–8 p.m.	14–15 hrs.**	12.8 all days**
1–2	7–8	12–14**	11.8**
3–6	7–8	11–13**	10.3**
7-11	8–9	10-11	9.4
12–17	10:30-11:30	8.5–9.5	7.6 weekdays 8.9 weekends
18–54	10-12	7–8.5	6.8 weekdays 7.4 weekends
55–84	8-10	7–8.5	6.9 weekdays 7.5 weekends
*REFERS TO BEDTIME IN THE NATURAL SLEEP-WAKE CYCLE. ACTUAL BEDTIMES WILL VARY. †BASED ON NATL. SLEEP FOUNDATION (NSF) SURVEYS, 2003-2006. **INCLUDES DAY AND NIGHTTIME SLEEP. SOURCES: NSF; DR. JUDITH OWENS, HASBRO CHILDREN'S HOSPITAL.			

to stay up late if these entertainment options are less accessible. Moving these activities out of the bedroom also gives parents a more realistic picture of when their kids really go to sleep.

- 12 **Limit caffeine intake.** Sleep-deprived teens increasingly rely on coffee, soda and caffeinated energy drinks to stay 14 awake during the day. High caffeine intake can make it harder to fall asleep, perpetuating a cycle of bad sleep and daytime fatigue. Adolescents should drink no more than two caffeinated drinks a day and none after 5 p.m. They should also steer clear of stimulant medication as "study aids"; these do not take the place of sleep.
- 13 Adopt a healthy lifestyle. Teens who 15 exercise regularly, maintain a healthy diet and avoid alcohol tend to fall asleep

faster and stay asleep longer than those who don't. (The same is true for adults.) Teens who smoke or use chewing tobacco should quit for many reasons, but getting better sleep is an additional motivation. Nicotine is a stimulant that can disturb sleep.

- 14 **Take naps.** Buildup of some sleep debt is inevitable—given most schools' yawn-inducing start times and the obstacles to falling asleep at 11. Teens who routinely get much less sleep than they need can make up for some of the difference with a nap after school. To prevent nighttime sleep disruption, teens shouldn't nap longer than 60 minutes or in the evening after dinner.
  - 5 **Set rules.** Forbidding teens to drive after 11 p.m. (when they're most likely to nod off) won't win Mom and Dad any

popularity contests, but it can save lives. 18

- Be alert for sleep disorders. Teens may suffer from the same disorders that prevent adults from getting a decent night's sleep. These include obstructive sleep apnea (a nighttime breathing disorder), narcolepsy<sup>3</sup> and restless-legs syndrome.
- 17 **Provide a good example.** If parents are staying up late and battling sleep deprivation with gallons of coffee, why should teens follow their advice to get a good night's sleep?

Above all, don't give up. Bovle. the teacher in Massachusetts, talks one-on-one with students who repeatedly fall asleep in class about the importance of sleep and calls parents if the problem continues. "These aren't bad kids," she says. "Often, they're highly motivated, spending hours on homework and also working to save money for college. If you talk to them, you can have a big impact."

<sup>&</sup>lt;sup>3</sup> narcolepsy — a condition characterized by brief attacks of deep sleep, often occurring with sudden loss of muscle power

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